would have had a better chance to form their opinions.

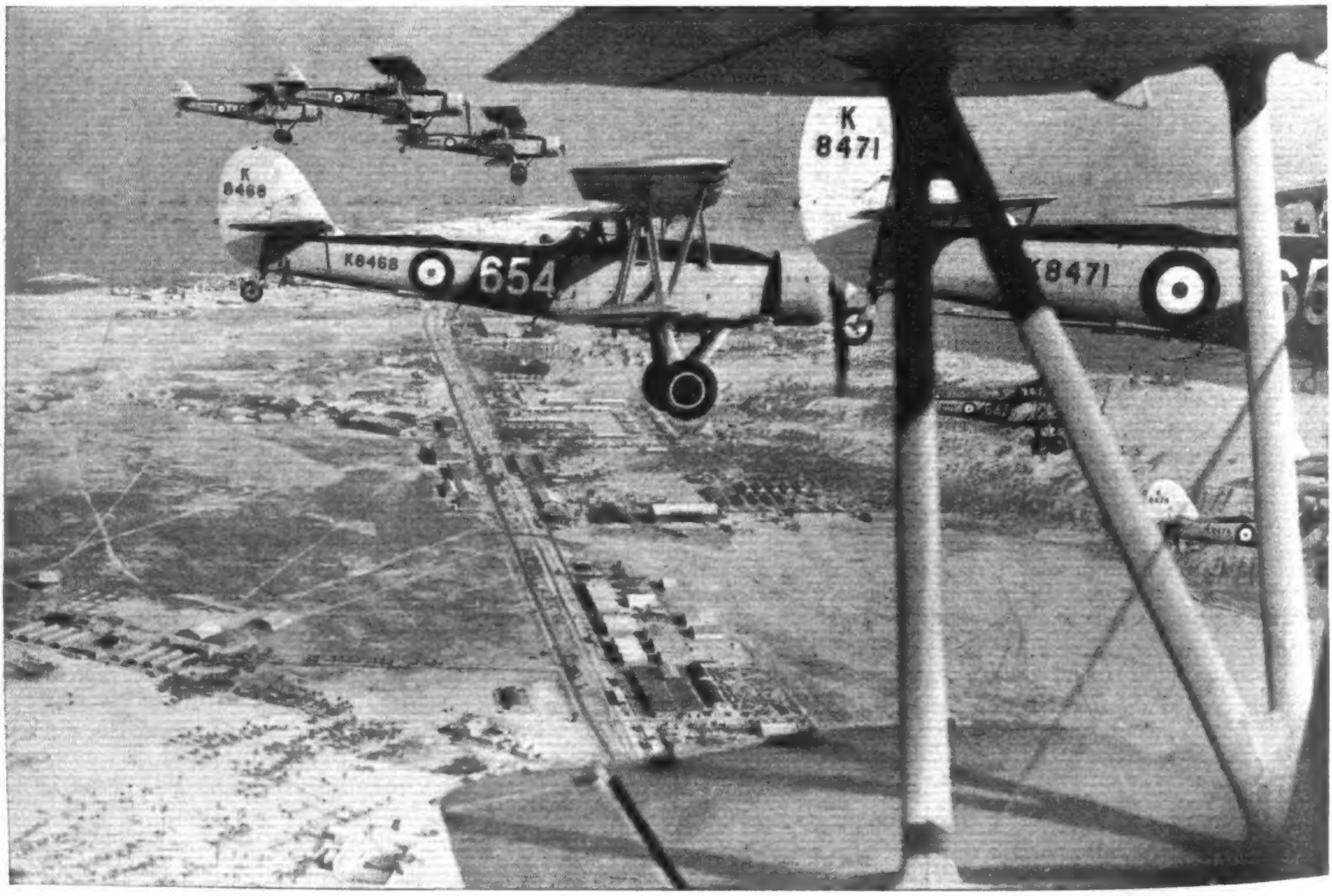
As for the paper itself, its importance is such that we have decided upon the somewhat unusual course of devoting almost the whole of *The Aircraft Engineer* supplement to it this week in the belief that readers all over the world will welcome the earliest possible information on a number of subjects which are bound to have a profound effect on the immediate future of aviation development. One may or may not agree with everything Mr. Fedden said, but it is impossible either way not to be intensely interested.

At the Cross Roads

The present time is a critical one, and upon the decisions made in the near future will very largely depend the lines upon which British aviation is to develop during Mr. Fedden's "Five-year period." One thing seems certain: it is time that the needs of civil and military aviation are studied separately. Gone are the days of the general-purpose engine; specialisation is the order of the day, and will tend to become more and more so. Moreover, the "thoroughbreds" now being developed will require a longer development period than did the general-purpose engines of a few years ago, and it must be assumed as a logical corollary that periods between the introduction of new engine types will tend to increase. This will make it doubly necessary to study each project thoroughly before putting it into production.

One aspect which was brought into prominence by the lecture and the discussion was the growing uneasiness concerning the way in which Great Britain is allowing the diesel engine to drop into the background. The C.I. engine received support from many quarters, some of them rather unexpected. Even in the sphere of military aviation there seems to be room for the diesel (for long-range aircraft) in spite of the almost phenomenally low fuel consumptions which are expected from 100-octane petrol. In civil aviation the claim of the diesel is far greater. Fire is but one of the many risks which the crew of a miliary aircraft have to face. That risk is likely to be considerably increased if 100-octane fuels are introduced, owing to the hotter engine and the closer cowlings that will be used. For a time at least, the civil market is not likely to be large enough to produce special civil petrol engines, and the insistent call for increased performance may result in 100-octane military engines being introduced in civil aircraft if no alternative is available.

The diesel engine does appear to be useful both in military and civil aircraft of certain types, and therefore it is logical to argue that it should be developed. It begins to look as if the "assisted" type of take-off will come in for careful examination in the near future, be it of the "composite aircraft" type, catapult-launched or some other form. The great—in fact, one might probably say the greatest—drawback of the diesel is that for a given size it will not give as high as specific output for take-off as will the petrol engine, although it can be cruised at something nearer its maximum power. The assisted take-off may reduce this disability and may well result in making the diesel a good deal more attractive. It is hardly to be expected that private enterprise will be willing to find the necessary capital, and some form of Government support seems inevitable.



BASKING SHARKS: Egyptian sunlight lends a particular charm to this view of Blackburn Shark T.S.R.s (Siddeley Tiger VI engine) from H.M.S. *Courageous* over Aboukir, the coastal town and R.A.F. base near Alexandria.